DUALISM MODERNISED.

DUALISM is the earliest metaphysic. In tribal society it is the universal belief, and even in modern society the mass of mankind adhere to it. A system of dualism had not been formulated to harmonise with the new concepts of science, although it is assumed by a multitude of writers, until Professor Ladd as a physiologist, especially of the nervous system, now presents a theory purporting to be derived from the teachings of modern psychophysiology.

Ancient philosophy inherited a doctrine of ghosts from barbarism. This doctrine science has called animism. In this notion of the constitution of the world all bodies are divided into two classes, material bodies and ghostly bodies. It is supposed that the two classes have independent existence. Material bodies have a distinctly observable existence: they can be tasted, they can be touched, they can be felt as pressures, they can be distinctly heard—that is, they can be plainly revealed to the senses, but they are inert and unconscious. On the other hand ghostly bodies have mysterious existences. Ordinarily they cannot be tasted, touched, heard, and seen, but there is a peculiar class of people who under peculiar conditions may have communication with them, and ghosts are living, conscious bodies. They are supposed to live in a hazy or cloudy condition and are hence often called spectres. These spectral bodies can become domiciled in material bodies. In sleep they go forth from their homes and live a magical existence, travelling as thought wanders from object to object and from place to place. As material bodies are inert the life of material bodies be-

longs to their ghostly inhabitants. As material bodies have not mind, only their ghostly inhabitants are possessed of mind. The manifestation of life and mind which seems to inhere in some material bodies, is, in fact, to be attributed to the ghostly inhabitants. The class of persons to whose senses ghosts are revealed can communicate with them and learn about the mystery of the world, and the ghosts of these persons may even leave their own bodies and travel at will. How this doctrine originated has become an object of scientific research, and it is already explained. This is the original theory of dualism which has been modified in modern times.

The modern doctrine of dualism makes a radical and in many respects a just distinction between animate and inanimate nature; only animate bodies have ghosts. Sometimes a distinction is made between human bodies and other animal bodies, and only human bodies are believed to have ghosts; though it is not common to distinguish between the lower animals and man in this manner. Usually the distinction is covered up in a haze of speculation, or else it is wholly ignored.

Thus, Ladd in his new theory of evolution distinguishes between things and selves; but it is not clear whether by selves he means human beings only or all animate beings.

A few years ago a society was organised, known as the Society for Psychical Research, the purpose of which seems to be to investigate the subject of ghosts. The outcome of these "researches" seems to be the abandonment of the ghost theory and the substitution of a physical theory of telepathy, by which men are supposed to communicate with one another without contact direct or through a medium; especially is it desired to establish the doctrine that dying persons may communicate with distant friends and relatives. So the ghost theory vanishes in telepathy! On the other hand scientific investigation, especially in psycho-physiology, is active and searching; and scientific men are reaching the conclusion that all matter has the property of consciousness.

That affinity is choice has long been taught in chemistry, although it has been controverted or rather ignored by many chemists. Where there is choice there must be consciousness as its

foundation; the choice is relative to some other with which the choice of association is made, and the choice of association must have its foundation or absolute in consciousness. This is the legitimate outcome of the last twenty years of research.

That affinity is conscious choice is now more thoroughly established than ever before. Ladd himself, the latest scholar to propound a system of dualistic theory, or doctrine of ghosts, seems to adopt this conclusion. A decade ago it was announced in a very thoughtful and able work by Professor Johnson of the Harvard school of Theology. The doctrine is springing up on every hand among scholars in psychology and physiology.

This doctrine must not be interpreted to mean that all rocks and plants are animals, but only that there exists in rocks and plants something which when properly organised for the purpose appears in animate bodies. There is a something in all matter which, when duly organised, will exhibit those characteristics of animals which we call mind.

In the history of ancient philosophy there may be found vestiges of a notion which has come to be known as hylozoism. It is the doctrine that all matter has mind. It seems to have been entertained by some men for more than twenty centuries, but it has never been accepted as having a scientific foundation. The distinction between the animate and the inanimate seems to be too plainly made in nature to warrant its general acceptance. Still in some qualified way it has been revived and restated from time to time by a few of the greatest scientific men and by a few of the greatest philosophers.

Professor Ladd adopts the hylozoistic theory, but rejects the term matter and proposes to use the term nature. By this course he avoids the *odium theologicum* under which the term materialism has fallen, though he seems still to retain the dualistic theory of material bodies and ghosts. I say seems, although in fact he makes a strong and valid argument for the unification of spirit with the other properties of matter in every body and particle of the universe. Hylozoism has been rejected by science, and can no longer be entertained in the sense in which it has been held from ancient

times up to modern physiologic and psychologic science. Hylozoism, as the name implies, is a theory that all bodies are animals. This of course is absurd. But it remains to be considered whether all bodies are spiritual or not. In this form modern science is coming to recognise that all matter is spiritual. Science has from time to time affirmed that all matter contains all of the properties necessary to explain the existence of all of the bodies of the universe, and even those metaphysicians who have devoted especial attention to the sciences which are embraced under the general term natural history have sometimes affirmed the same doctrine—as when Schelling says that "Matter is the general seed corn of the universe, wherein everything is involved that is brought forth in subsequent evolution." This is the doctrine of science, as Ladd recognises, for he quotes from Tyndall with approval:

> "Suppose, then, that the student of nature, 'abandoning all disguise' and 'prolonging the vision backward across the boundary of experimental evidence,' discerns in 'that matter which we, in our ignorance and notwithstanding our professed reverence for its creator, have hitherto covered with opprobrium, the promise and potency of every form and quality of life.' . . . 'If life and thought be the very flower of matter and force, any definition which omits life and thought must be inadequate, if not untrue.'"

Bear with me while I still further explain the relation of affinity as consciousness and choice to organised mind. Organisation is the same thing as incorporation. We speak of organisation when we consider the organs severally, we speak of incorporation when we speak of the organs conjointly, just as we speak of space when we consider particles severally and of form when we speak of particles conjointly. Molecules are organised as numbers; minerals composed of molecules are also organised as forms. Geological formations or rocks which are organised as forms are also organised as forces. Plants which are organised as forces are also organised as causes, so that the antecedent parent is like the consequent offspring. Animals, being organised as causes like plants, are also organised as minds. Thus animals are organised not only as molecules but as minerals, as formations, as forces and as plants, and also as psychic beings. These are the discrete degrees of organi-

sation which may be observed in the bodies of nature. We cannot understand science unless we understand that there are degrees of organisation. I reject hylozoism because I deny that molecules, minerals, formations, and plants are organised as animals, and yet I believe that every particle in the animal's body has unity, extension, speed, persistence, and consciousness; and as particles have these absolutes, they also have their relatives.

Every organised body of the universe is one in many: it has extension and position, it has speed and path, it has persistence and change, and it has consciousness and choice; for plurality is the relative of unity, position is the relative of extension, path is the relative of speed, change is the relative of persistence, and finally choice is the relative of consciousness. Animal body is distinguished from all other bodies in that it is organised upon a plan through which all of its properties are operated. I do not confound animals with other bodies; this is hylozoism. I recognise the distinction between animals and other bodies, but I do not deny that the particles of other bodies have all the essentials found in animals.

All bodies are organised in respect to purposes, but some operate in a different manner from others. In some the purposes are more restricted than in others. Molecules are restricted in their organisation to operate as kinds; minerals are restricted in their organisation to operate as kinds and forms; formations are restricted in their organisation to operate as kinds, forms and forces; plants are restricted in organisation to operate as kinds, forms, forces, and causations; but animals are organised to operate as kinds, forms, forces, causes, and also as concepts. The restriction of an organisation to one function is easily understood. We may organise a society for mutual discussion, then we may further organise for research in the subject which we discuss, then we may still further organise it for the purpose of diffusing the results of the research.

In all animal bodies there is a five-fold organisation which is well developed and exhibited in the human body. First, there is metabolic organisation for the chemical preparation of the food.

This organisation is in itself a system of many organs. Every member of this system is composed of subordinate organs that perform all of the five-fold functions. The stomach, one of the organs of metabolism, is permeated with organs of circulation; it is supplied with organs of muscular activity; it is supplied with organs of reproduction, for the stomach is forever in process of reproduction. It is also supplied with organs of mind, for it is bountifully furnished with nervous elements.

The five-fold organs of metabolism, of circulation, of muscular action, of reproduction, and of nervous function, are also every one compound organs for all of the five properties with which matter is endowed. It is because of this complete organisation that animals differ from all other bodies of the universe. Plants have organs for chemical operations, organs for form operations, organs for force operations, and organs for operations of causation, or as we call them, for reproduction; but they have no organs of mind: hence the discrete degree of organisation which separates animals from plants. Yet the ultimate particles of the plants have all the essentials.

Geologic formations or rocks have organs of chemism, for they are composed of molecules. They have organs of form, for they are composed of minerals. They are organs of force, because they carry on geologic operations; but they have no organs for reproducing themselves, so that causations are not organised to produce hereditary successions as in plants; and yet every particle of rock has all of the five essentials of matter, as unity, extension, speed, persistence, and consciousness. All rock bodies are organised in three discrete degrees, all plants in four discrete degrees, and all animals in five discrete degrees. Thus the doctrine of hylozoism is not valid, but the doctrine of the consciousness of all matter is valid. The same particle of matter which is the constituent of a rock to-day may be a constituent of a plant to-morrow, or it may be the constituent of an animal the next day. The five-fold essentials of matter are universal, but the five-fold organisation of matter is not universal.

Dualism is the modern and metaphysical explanation of the

ghost theory in which the spiritual element of animal bodies, or at least of human bodies, is held to exist as an independent body. It therefore teaches that there are material bodies and ghostly bodies. Modern science teaches that the spiritual element in man as in all other animal bodies is an essential of all bodies, but that it is organised only in the animal body, and is immeasurably more highly organised in the human body than in the lower animal. It teaches that mind is organised consciousness, and until this organisation is secured there is no mind, but only consciousness. The ghost theory is a superstition which remains over from savagery as a vestigeal opinion.

A great difference between the author and modern dualists consists in the method of identifying the psychic principle with something already well known to science. Professor Ladd, for instance, who is as good an exponent of dualism as any one of them, identifies the soul with will and ultimately with force; we identify it with self-consciousness (as awareness of self) and with choice, and consider it to be the same thing as that of which science treats under the term affinity when consciousness acts in choice.

Read in modern physiology the account which science gives of the unicellular organisms of the blood, and you will find that the functions of these organisms cannot be described without assuming that they have consciousness and choice.

The new dualism, like its progenitor, animism, lays great stress upon the telism of nature, which is the manifestation of design in the universe. This telism is assumed, illustrated, and proved by the modern science of evolution; but the telism of dualism is metaphysical, while the telism of science is altogether another affair.

Evolution cannot be stated except in terms of telism. Evolution must recognise organisation, and all organisation accomplishes a purpose. Scientific men are forever explaining how purposes are subserved by organisation. No matter what the philosophy or the metaphysic of a naturalist may be, whenever he comes to discuss an organ he explains the purpose for which it is used, the advantage which accrues from its use, and its survival by reason of this advantage. Purpose is discovered everywhere in nature, but

especially in plants and animals does it constitute the theme of all modern science on these subjects. That the telism taught by modern science differs radically from the telism of metaphysic, we must now set forth.

A little river empties into Lake Michigan where now the city of Chicago stands; this river furnished a harbor for vessels to some of the pioneers of the west. The river was thus used by them for a purpose. On its bank a trader founded a mart. Thus the site of Chicago was established in a purpose which did not contemplate the building of the present city. The traffic gathered about it a few settlers who required protection, and a fort was built; yet there was no plan devised to build the great city.

At last the village grew to be a well-to-do town where goods were landed from vessels that sailed the lakes and sold and distributed to the south and west, far and wide, and the purposes of thousands of men were subserved in the building of the city. These purposes were innumerably multifarious, arising severally during every moment in the history of every man who took part in supplying the wants of the people, or who took part in receiving supplies for their wants.

The site of the town was a swamp, but when the people became numerous and much wealth was accumulated they raised the city out of the mud. None of the founders anticipated the necessity for this action; yet it was due to the purpose of the city government. Highways were built to the city and railroads were constructed from the city and when the people became many and were scattered over an expansive district rapid transit became necessary, and thus street railways were constructed, not to build the city but for gain in traffic. In the meantime parks were laid out and the city beautified; later an exposition was held, and the exposition gave a boom to real estate, though the purpose of the builders was gain. Then came a temporary crash in values, but still the city grew with renewed strength, and already a great metropolis has been constructed. All of this has been accomplished in the pursuit of human purpose, but the city was not the purpose of any one man but of millions of men, and it was a purpose that did not look

to the construction of the metropolis as it is to-day, nor do the striving millions in Chicago or the hundreds of millions who co-operate with them have in view the creation of the city which may stand there a hundred years from to-day.

Surely Chicago has been built by purposive action, notwithstanding it has been once largely destroyed by mechanical action. But who is so foolish as to claim that the purpose existed in the mind of the trader who built his cabin there, or in the minds of the people who have inhabited Chicago, or of the people who have co-operated with them from without? Chicago of to-day is the accomplishment of the purposes of many men. It is in this sense only that final purpose can be asserted of the building of Chicago. The working of the purpose of the many through innumerable or infinite acts brought the final result; in this sense and in this only can we speak of a final purpose in the world of art. But if we claim foreknowledge for this purpose every man who understands the claim will deny it.

All incorporation is thus purposive, and this I believe is taught by the modern science of evolution at the present time, though many of its cultivators have not risen to the concept; but that anywhere in nature there exists anybody or has existed anybody with the foreknowledge of the present outcome of evolution I deny. There is no molecule, there is no star, there is no rock, there is no plant, and there is no animal, which exists or which has existed with this knowledge.

There was never in the mind of any individual a design for the city of Chicago. There has never been an *a priori* plan for its construction, but its plan has been a growth by minute increment of purpose in the minds of a multitude of men, every one expressing a multitude of purposes by multitudinous acts of will. Purpose itself is subject to evolution.

We look upon the organisation of the human body as a result of teleologic cause, but do not believe that an *a priori* plan was made by which this incorporation was developed through mechanical external contrivances. We hold that the human body has been developed by increments of purpose inhering in every particle of

every human being that has existed on the earth, together with every particle of every lower animal that has existed on the earth, together with every particle of every rock that has existed on the earth, together with every particle of every star in the universe, together with every molecule that has existed in the universe, together with every particle of ether in the universe. All of these bodies and particles have co-operated in making the human body, and their co-operation has been accomplished through telic causation; but there has never been any natural particle or body as an individual to plan the entire structure of man, nor has there ever been an *a priori* plan for it in nature. The plan of his structure is known even yet imperfectly by *a posteriori* cognition. The purposive actions of all other particles of the universe have co-operated with all the purposive actions of the human race to produce the human body. In a plan for a work of art, as the building of a steam engine, the construction of a railway, or the building of a city, we see much of *a priori* design, together with more of incremental purpose. In the structure of the human body we find little or nothing of *a priori* design but much of incremental purpose; while in the plant and in the crystal only incremental purpose can be discovered. The reason for this is found in the fact that self-consciousness and choice are but affinity, that they still inhere only in the particles constituting the bodies, because there is yet no organisation of mind. Mind must have organs of thought that design for the future may be planned; and that designs may be made, there must be memory of the past. When we consider the past and compare it with the present, then only can we make designs for the future. All of this mental activity is not found in other bodies than those of animate life. Animal bodies have mind, other bodies do not have mind, but other bodies do have self-consciousness and choice. A belief that inanimate bodies have mind is the real hylozoism, and that form of anthropomorphism science repudiates.

It is perhaps impossible to discover whether Ladd embraces a teleology which is a growth by minute increments without an *a priori* plan of the final results, or a teleology which assumes an *a priori*

design. A later chapter implies that he believes in this metaphysical teleology.

Professor Ladd discusses spheres of reality. Perchance I do not understand the meaning of his argument, though I have tried hard to unlock its treasure-vault of thought; reading it again and again for this purpose. What does he mean by spheres of reality? When metaphysical speculation was born, men spoke of spheres of space, because they believed the earth to be encompassed by hollow revolving spheres in which the heavenly bodies were supposed to be set; they thus accounted for the apparent motion of the celestial orbs. What is the thought which the author symbolises by this figure of speech? At first blush I thought that he designs to set forth the distinction between the teleology of affinity, the teleology of animality, and the teleology of man; but ere the chapter was completely read I found, or supposed I found, that the purpose of the chapter is to develop the concept of an animate universe as an individual existence.

He represents the cosmos as a human being of all-embracing proportions. We must remember here that it is his habit to call human beings selves, though sometimes he seems to call all animate beings selves. I believe that I have rightly interpreted the teachings of this chapter as an effort to develop the concept of a cosmical self, but the course of the argument is strangely metaphysical as I use that term. In what way it is metaphysical I may not take the time of my reader to explain fully, but I will give some of the characteristics of this method of dialectic, or reasoning with words instead of ideas. He uses the term absolute self, meaning thereby a cosmical human being, and then raises the question whether the noun and the adjective can be taken together, that is, whether the meaning of the adjective does not contradict the meaning of the noun.

The term absolute in metaphysical dialectics is used with three very distinct meanings:

First, it has the meaning of perfect or pure, as when we say perfect or absolute alcohol. We might thus call pure wine absolute wine, and it is common to say that pure truth is absolute truth.

The second meaning inheres in its use when affirming that something is absolute in itself, which is also relative to others. In H_2O the H_2 is absolute in itself and the O is absolute in itself, but in the molecule of water represented by them both there is a relation between H_2 and O. Thus in the water H_2 and O are both absolute and relative. Science in all its departments deals with this absolute.

Metaphysic has a third absolute. When properties or qualities are considered as independent existences or when relations are supposed to exist independent of their terms, and a mythology is created of abstractions, then the notion of a pure or unrelated absolute is entertained. This is the absolute in the exclusive possession of metaphysic.

Thus metaphysic entertains three meanings for the term absolute and confounds them as one. In a metaphysical argument it is always impossible to determine with which meaning the term is used.

Then he uses the term consciousness with two meanings combined. Consciousness means self-consciousness, or awareness of self; but the term has also come to be used in metaphysic as synonymous with cognition. There is always an element of self-consciousness, or awareness of self, in every act of cognition, because cognition is the interpretation of an objective manifestation received in a sense-impression by comparing it with a concept already existing in the mind. This is an inference, but the inference requires verification in order to be a true cognition.

Again, as I have already stated, our author often uses the term form to represent a space concept, as to express the relation of positions of extension in structure which also have figure or shape. He also uses the term form as a trope without realising that it is a trope. He speaks of the forms of motion and the forms of force and the forms of judgment and the forms of concepts and the forms of thought, although such forms cannot exist with the first meaning. He uses form in a generic sense as a trope to signify all of the properties of bodies, and in this sense he speaks of forms, laws, and purposes again and again.

The habit of figurative naming is common. Thus we call an old man grey-beard, and the Greeks called a squirrel a shade-tail. Such trope naming is common in all languages, and our author recognises this, but does not consistently make the discrimination in his use of words. In reasoning we should use terms with single meanings; the word should stand for one differentiated concept, and a concept should represent a real thing in nature or art.

This misuse of terms has long been recognised in logic, but never consistently avoided. It was followed in the logic of mathematics, until mathematicians came to speculate about space of n dimensions; for although equations involving n powers are legitimate, when we consider such terms as if they were dimensional terms of space we are indulging in metaphysic. He who reasons in terms with more than one meaning is lost in a maze of fallacies. This confusion is the characteristic of dialectic reasoning, or reasoning with words as distinct from reasoning with concepts, which considers a word in all its meanings as if these meanings were combined in one concept.

But may we not look upon the universe as being endowed with consciousness and choice? Is it not an individual; and is there not a possibility of its being mind?

It is a doctrine established by science that the world is one composed of many, that its extensions have structural positions, that its motions have systematic relations, that its times have causational relations, that its judgments have conceptual relations, and that it is thus an individual. That this individual, the cosmos, has such an individuality as to comprehend both the past and the future and to devise the whole course of evolution as an *a priori* plan, is a result only of metaphysical speculation, and science claims no share in the product.

Dualism like idealism and materialism rests on metaphysic. Metaphysic is a system of reifying properties. Idealism reifies mind and derives the other properties of matter from mind.

Materialism reifies force and derives the other properties of matter from force. Dualism, idealism and materialism are the three main systems of metaphysic, and they are blended in what I

propose to call modern dualism. Modern dualism supposes mind to be will, identifies will with force, and then reifies will as the substrate to which the other properties of matter are attached. It is an attempt to harmonize idealism with materialism; in so doing the new doctrine accepts the fallacies of both.

This tendency is apparent in all modern dualists, and we find it very pronounced in Professor Ladd. But in identifying force with will and making it the substrate of the world, Professor Ladd contradicts his own dictum that no category is completely dissolvable into any other.

The three systems of metaphysic alike invoke not only the unknown, but also the unknowable and the transcendental. They are forever in search of the occult. They do not make research for scientific reality, but make quest for some method of expressing reality as unknown, unknowable, and transcendental.

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